Chapter 9 – Contract Administration Quality Assurance Program (CAQAP)

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References

(a) Federal Acquisition Regulations (FAR)

(b) Naval Ships Technical Manual (NSTM) S9086-VD-STM-030/CH-631V3, Preservation of Ships in Service, Surface Ships/Submarine Applications

(c) Submarine Maintenance Standard MS 6310-081-015, Submarine Preservation

(d) NAVSEAINST 4700.17A, Preparation and Review of Trouble Reports

(e) Organization (ISO) 9001:2000, Quality Management System

(f) NAVSEAINST 9304.1, Shipboard Electrical Cable and Cableway Inspection and Reporting Procedures

(g) MIL-STD-1330D(1), Precision Cleaning and Testing of Shipboard Oxygen, Helium, Helium-Oxygen, Nitrogen and Hydrogen Systems

(h) NAVSEA Technical Publication T9074-AS-GIB-010/271, Requirements for Nondestructive Testing Methods

(i) 0900-LP-001-7000, Fabrication and Inspection of Brazed Piping Systems

(j) NAVSEAINST 4355.7A, Nondestructive Test (NDT) Examiner Qualification and Requalification

(k) NAVSEA 250-1500-1, Welding Standard

(l) NSTR-99, Qualification Examination Requirements for Nondestructive Test Personnel

(m) MIL-STD 791, Certification for UT/VT of Lead Bond

(n) SECNAV M-5210.1, Records Management Manual

(o) NAVSEAINST 9210.31, Government Procurement Quality Source Inspection Actions for Shipyard Procured Material Under Cognizance of NAVSEA 08

(p) SECNAVINST 4855.3B, Product Data Reporting and Evaluation Program (PDREP)

Chapter 9 – Contract Administration Quality Assurance Program (CAQAP)

9.1 Introduction

This chapter establishes the basic provisions for the Contract Administration Quality Assurance Program (CAQAP) for hardware and technical data in accordance with DoD and NAVSEA policy. It includes provisions for tailoring the implementation of these programs to the particular need, based on contractual requirements, of each SUPSHIP.

The CAQAP outlines requirements for new construction, conversion, modernization, and major repair contracts assigned to a SUPSHIP. It applies to all nuclear and non-nuclear areas, except as otherwise indicated.

There are seven elements of the CAQAP that are designed to provide a systematic program for ensuring contractor compliance with contract requirements. These elements, which are based on the deliverable product and contractual requirements, are:

- Planning
- Document Review
- Procedures Evaluation (PE)
- Product Verification Inspection (PVI)
- Quality Audits
- Corrective Action
- Quality Data Evaluation

SUPSHIP will develop, apply, and maintain an effective program for performing Government Quality Assurance (QA) actions consistent with the CAQAP. The elements of the CAQAP will be described by operating procedures that provide SUPSHIP personnel with specific direction in applying these to the local contracting environment. Coordination and cooperation among the various SUPSHIP departments and contractor are essential to the success of the program. In particular, the QA department's role of ensuring that the CAQAP and associated process attributes are in concert with the Engineering department's role in determining technical adequacy and compliance with technical standards as discussed in Chapter 8, as well as providing oversight of the contractor's Quality Management System. In addition, some new construction programs require that the CAQAP consider the role of ABS, USCG and other agencies as noted in paragraphs 1.3.10 and 1.3.11 of this manual.

9.1.1 Quality Assurance Directive

The CAQAP applies to all Government QA actions by SUPSHIP personnel. The policy described herein encompasses the policy established by FAR, reference (a), Part 46, Quality Assurance.

The primary instructions applicable to the CAQAP are identified in this chapter; however, new or revised NAVSEA instructions, directives, Ship Project Directive (SPD) requirements for QA when invoked by the PM, and policy letters not included in this chapter, but which contain mandatory QA requirements, will be incorporated into each CAQAP.

The theme throughout the directives is that representatives from Government organizations will not serve as a replacement for any aspect of the contractor's own quality management system, nor should SUPSHIP personnel be used by the contractor as a progressive inspection source to determine end product acceptability.

9.1.2 NAVSEA Evaluations

Every three years, or as considered necessary, NAVSEA will conduct product oriented evaluations of each SUPSHIP and associated contractors. The purpose of these evaluations is to ensure SUPSHIP conformance with QA functions and responsibilities and that the contractor is in compliance with the contract technical requirements.

9.1.3 Glossary of Quality Assurance Terms and Acronyms

A glossary of Quality Assurance terms is provided in Appendix 9-A and a list of acronyms used in this chapter is found in Appendix 9-B.

9.2 Contractor Responsibilities

The contractor carries out the obligations as set forth in the terms and conditions of the contract. The contractor is responsible for controlling product quality, offering to the Government for acceptance only those products and services that conform to contract specifications and, when required, for maintaining and furnishing objective quality evidence of this conformance.

9.3 SUPSHIP Responsibilities

When assigned to administer a government contract that has been awarded to a contractor over whom SUPSHIP has plant cognizance, SUPSHIP shall accomplish the following in accordance with FAR 46.104, Contract Administration Office responsibilities:

a. develop and apply efficient procedures for performing Government contract quality assurance actions under the contract in accordance with the written direction of the contracting office

b. perform all actions necessary to verify whether the supplies or services conform to contract quality requirements

c. maintain, as part of the performance records of the contract, suitable records reflecting:

(1) the nature of Government contract quality assurance actions, including, when appropriate, the number of observations made and the number and type of defects

(2) decisions regarding the acceptability of the products, the processes, and the requirements, as well as action to correct defects

d. implement any specific written instructions from the contracting office

e. report to the contracting office any defects observed in design or technical requirements, including contract quality requirements

f. recommend any changes necessary to the contract, specifications, instructions, or other requirements that will provide more effective operations or eliminate unnecessary costs

SUPSHIP responsibilities for complying with these requirements are discussed in detail in the following paragraphs.

9.3.1 Planning

Planning the actions required to determine the contractor's compliance with the contract requirements will be systematic and shall consider the contractual requirements and relative importance of the product. The objective of this planning is to take into account all the factors involved in deciding how SUPSHIP personnel can most effectively and economically perform the CAQAP function.

Planning will be documented, systematic, and must define all SUPSHIP required CAQAP actions. Planning for all products will include:

a. appropriate distribution of SUPSHIP effort between inspection of products and evaluation of the contractor's quality management system

b. review of the contract package and related documents to determine completeness, continuity, and responsibilities for ensuring contractor's performance of technical and quality requirements

c. review and/or approval of contractor's written procedures and technical data to ensure technical adequacy and timely release of the procedures

d. evaluation of the contractor's written procedures to ensure the contractor accomplishes the intended purpose of controlling product quality

e. development of detailed PVI checklists for the actual inspection or verification of products to determine conformance to the requirements of the contract

f. provisions for applying corrective action when a breakdown or other inadequacy is noted in the contractor's quality program

g. provisions for invoking Government Contract Quality Assurance actions at subcontractors' facilities

h. provisions for the collection, evaluation, and use of quality data

i. provisions for accomplishing quality audits

j. provisions for review of the contractor's quality history

9.3.2 Document Review

Document Review is the CAQAP element for verifying that the contractor's documented procedures and technical data comply with contractual requirements.

9.3.2.1 Procedure Review (PR) Criteria

When a contractual requirement exists for a contractor to develop formal procedures, SUPSHIP will identify those procedures necessary for review based on the degree of risk. Each identified procedure will be reviewed for conformance to the administrative and technical requirements contained in the contract. SUPSHIP must review the contractor's procedures in a timely manner and not delay the contractor's contract performance. Procedures are categorized as follows:

Category 1: Procedures for which NAVSEA approval is required by specification.

Category 2: Procedures for which SUPSHIP approval is required.

Category 3: Procedures for which government approval is not required, but copies are to be furnished to the SUPSHIP for information and review.

All Category 1 Procedures must be submitted to NAVSEA for technical concurrence. This review is not limited to newly developed procedures, and includes subsequent revisions and changes. When the contractor does not develop required written procedures or fails to correct inadequate procedures, SUPSHIP will initiate a Corrective Action Request (CAR).

9.3.2.2 Technical Data Review Criteria

Data review and evaluation will be performed on all deliverable technical data. Review of technical data includes a detailed examination to determine if the content and format conforms to contract requirements. Technical data not requiring Government approval shall be reviewed on a selected or sampling basis. SUPSHIP may use any local means of

selecting characteristics or attributes. When the technical data does not meet contract requirements, or the contractor does not develop the required technical data, SUPSHIP will initiate a CAR.

9.3.2.3 Documentation

For all procedures and/or technical data reviewed, SUPSHIP will maintain documentation including the identification number and title of the document(s), revision date, date reviewed, approval status (approved/disapproved), results of the review including all comments, and the name of the individuals performing the review.

9.3.3 Procedure Evaluation (PE)

PE is the CAQAP element that verifies that the contractor is complying with the written quality procedures and that the procedures are accomplishing the intended purpose of controlling product quality. PEs shall be conducted utilizing checklists or an attribute system. They are to be accomplished as early as possible and periodically throughout the performance of work to confirm the sufficiency and adequacy of the quality procedures in operation. Process quality audits may be used in lieu of PEs.

9.3.3.1 Initial Evaluation

Evaluation of new or revised contractor quality procedures requiring government approval (Cat 1 & 2) and other procedures as identified by the Supervisor shall be conducted at the time of the contractor's initial use of the procedure. If unable to perform at initial use, the reason or situation will be documented along with a plan for future evaluation. Evaluations should include sufficient inspections of the contractor’s operations described by the procedure to ensure compliance with contract requirements.

9.3.3.2 Continued Evaluation

When the length of the contract permits, continuing evaluations of all applicable procedures should be scheduled and conducted after the initial evaluation. When a continued evaluation of a procedure indicates that the contractor is maintaining satisfactory control of quality, the frequency of evaluation may be reduced. When continued evaluation of a procedure indicates the contractor is not maintaining control of quality, appropriate corrective action should be taken and the frequency of evaluation should be increased.

9.3.3.3 Documentation

Documentation for Procedure Evaluations include:

- developed Checklists/Attribute System for PE(s)
- PE Schedule
- PE results including observations and nonconformities

9.3.4 Product Verification Inspection (PVI)

PVI is the CAQAP element that verifies that the product conforms to contract requirements. PVIs are accomplished by the cognizant SUPSHIP representative by physical examination, verification, testing, concurrent witnessing, or monitoring of all aspects of the ship construction or modernization process. Product quality audits, with the exception of mandatory inspections/call outs, may be used in lieu of PVIs.

9.3.4.1 Conduct of PVI

PVIs shall be conducted utilizing checklists or an attribute system. During the development of checklists or attribute lists, SUPSHIP shall include mandatory inspection points, call outs, critical inspection points, and those areas that may be concealed from further inspection.

Adjustments in the frequency of inspections will depend on nonconformity rates and problem areas that develop. As a prerequisite to SUPSHIP inspection or verification actions, the following steps should be taken at a minimum:

1. Determine the availability and currency of contractor's written procedure.
2. Determine the contract/technical requirements.
3. Determine the currency of calibration of contractor's measuring and test equipment.
4. Determine the adequacy of contractor's documentation.

Concurrent verification of contractor inspection or test actions should be conducted as follows:

a. As the contractor performs the inspection, witness the examination or test.

b. Independent of the contractor, read or use appropriate measuring/test equipment to determine if the product conforms to the technical requirements.

c. Observe whether the contractor accurately records the inspection or test results.

When Naval Ships Technical Manual (NSTM) S9086-VD-STM-030/CH-631V3, “Preservation of Ships in Service, Surface Ships/Submarine Applications”, reference (b), and/or Submarine Maintenance Standard MS 6310-081-015, Submarine Preservation, reference (c), or similar directives are invoked in a contract, the SUPSHIP is considered to be the third party inspector for preservation oversight of critical coated areas and is responsible for providing a qualified coating inspector in accordance with NAVSEA S9086-VD-STM-030/CH-631V3. The SUPSHIP third party qualified inspector is responsible for ensuring compliance with the requirements of references (b) and (c). The third party inspector may either perform the inspection or witness qualified contractor personnel performing the required measurements.

9.3.4.2 Documentation

Documentation for PVIs include:

a. developed checklists/attribute system for PVIs

b. PVI results, including observations/inspections and nonconformities

9.3.5 Quality Audits

9.3.5.1 Internal Quality Audit

Internal quality audits are conducted to determine compliance by SUPSHIP departments with quality related directives and SUPSHIP operating procedures. These audits are conducted when authorized by SUPSHIP management or higher authority.

9.3.5.2 External Quality Audits

External quality audits are the CAQAP element that examines and evaluates products, processes, services, systems, and elements. Such audits are referred to as “quality management system audits”, “process quality audits”, or “product quality audits”. Quality audits are conducted to determine the effectiveness of the contractor’s quality management system, analysis of the process, or assessment of product conformance.

9.3.5.2.1 Audit Periodicity

SUPSHIP audits of the contractor quality management system will be conducted every eighteen months to determine effectiveness. The quality management system audit may be conducted as a single audit or may be a combination of several audits. Follow-up audits will be conducted to verify and record implementation and effectiveness of any corrective action noted.

Process quality audits and product quality audits may be performed to examine and evaluate any process, function, or entity based on local needs and conditions. These audits may be routine, or may be prompted by significant changes in the contractor’s quality management system, process, product quality, or by a need to follow-up corrective action.

9.3.5.2.2 Documentation

Documentation for quality audits include:

a. audit schedules, including the identification of the lead auditor

b. audit reports, including results/resolutions and follow-up actions

9.3.6 Corrective Action

Corrective Action is the CAQAP element that defines the methods for requesting the contractor to correct nonconformities. To achieve systematic assurance of compliance through all phases of the contractor's operation, the basic causes of nonconformities must be identified and the contractor must initiate prompt corrective action to correct assignable conditions that have resulted in generating nonconformities. The correction of the nonconformity alone does not satisfy this goal. Corrective action as described in this section employs the "closed loop" concept, i.e., appropriate measures must be taken to identify the cause and prevent the recurrence of nonconformities. Any breakdown in the contractor's quality management system requires action by SUPSHIP to ensure that product quality is not compromised. The extent of this action depends on the frequency and significance of the nonconformity and the contractor's quality history. The contractor will be required not only to correct specific nonconformities but also to initiate preventive action to eliminate causes of nonconformities. SUPSHIP must determine the effectiveness of the contractor's action and will also determine the necessity for tighter control to ensure that the contractor's corrective action is satisfactory.

9.3.6.1 Corrective Action Request (CAR)

The CAR is the method by which the Government informs the contractor of nonconformity. The CAR may be used for any type of nonconformance, including non-quality nonconformities, such as safety and environmental deficiencies, provided the CARs can be readily segregated. When corrective action by the contractor is required, one of the following methods will be used:

9.3.6.1.1 Minor Nonconformities (Method A)

A minor nonconformity is a defect or flaw that will probably not impair the performance or life of a product or result in unsafe conditions for the user. A minor nonconformity should be corrected within 24 hours, but nonconformities not corrected within seven days shall be elevated to a Method B. Minor nonconformities that can be corrected within 24 hours shall be presented to responsible contractor personnel for correction. Each minor nonconformity will be described in sufficient detail to allow the contractor to understand what contractual requirement is violated and to take appropriate corrective action. SUPSHIP representatives should not require a contractor's written response; however, the internal SUPSHIP process shall ensure that minor nonconformities are documented and annotated with the date corrected.

9.3.6.1.2 Major Nonconformities (Method B)

A major nonconformity is a nonconformance that judgment and experience indicate could impair the performance or life of a product or result in hazardous or unsafe conditions for the user. When major nonconformities are detected or a trend of recurring minor nonconformities are noted, a CAR will be initiated citing the specific contract requirement and

a description of the nonconformity, clearly indicating how the contract requirement was violated.

The CAR shall be forwarded to the appropriate level of the contractor's management for action. The actual time frame for completion of contractor corrective action may vary; however, prompt response to CARs is required. An interim reply may be acceptable pending contractor's completion of corrective actions.

The CAR will include ship, unique serial number, appropriate references, statement of nonconformance, originator's signature, contractor's corrective action response (including elimination of causes to prevent recurrence when appropriate), and the SUPSHIP indication of acceptability and signature. Appendix 9-C provides an example of a CAR form that may be used.

9.3.6.1.3 Critical Nonconformities (Method C) or (Method D)

When the previous methods fail to obtain satisfactory results or when the severity of the situation warrants, a letter shall be issued from the Quality Assurance Officer/Director/Manager or delegated authority notifying the contractor's appropriate level of management that a serious quality problem exists and immediate management action must be taken to comply with the provisions of the contract. An electronic or hard copy of each Method C letter shall be furnished to the SUPSHIP Contracts Department.

When a Method C letter fails to obtain satisfactory results, or when the severity of the situation warrants, a Method D letter shall be issued by the Supervisor or the Contracting Officer notifying the contractor's top level management that a serious quality problem exists and immediate management action must be taken to comply with the provisions of the contract. An electronic or hard copy of each Method D letter shall be furnished to the SUPSHIP Contracts Department.

9.3.6.2 Trouble Reports

SUPSHIP shall have a process in place that defines and identifies which CARs require a Trouble Report to be generated in accordance with NAVSEAINST 4700.17A, Preparation and Review of Trouble Reports, reference (d). The Trouble Report identifies significant problems encountered in the construction, repair, and maintenance of Naval ships.

9.3.6.3 Documentation

Corrective Action documentation includes:

a. status of CARs

b. records of CARs

9.3.7 Quality Data Evaluation (QDE)

QDE is the CAQAP element that provides for the collection, evaluation, and use of contractor, SUPSHIP and customer quality data. Operating procedures within SUPSHIP will be established to describe the system to be used for collecting, evaluating, maintaining, and using the data.

9.3.7.1 Quality Data

Quality data may include:

a. inspection and test results

b. reports

c. surveys

d. audits

e. CASREPS

f. CAR(s)

g. Product Quality Deficiency Reports

h. PR, PE, and PVI results

i. Trouble Reports

j. critiques

k. customer complaints

9.3.7.2 Data Evaluation

SUPSHIP will evaluate the quality data individually or collectively at established periodic intervals (minimum of quarterly) for the following purposes:

a. to adjust the intensity of application of basic elements of the CAQAP

b. to provide a basis for acceptance or rejection of products or services

c. to provide a basis for acceptability of a contractor's quality management system and written procedures

d. to determine effectiveness of contractor's quality management system

e. to provide a basis for recommending process improvement initiatives to the contractor

f. to provide a basis for decisions related to the reallocation of personnel

9.3.7.3 Documentation

Documentation will include a quarterly report indicating quality data evaluation results.

9.3.8 Maintaining SUPSHIP Quality Assurance Competency

SUPSHIP is responsible for determining needed personnel requirements, initiating action necessary to obtain the required personnel, and providing training necessary to ensure the skills are available for the performance of QA functions.

SUPSHIP must provide training that ensures personnel have the skills, techniques, and knowledge necessary to comply with the requirements of this chapter. QA training opportunities must be extended to all appropriate personnel engaged in performing quality related functions. A training plan will be established and kept current.

Personnel performing quality-related functions must satisfactorily complete introductory/overview training in International Standards Organization (ISO) 9001:2000 "Quality Management System," reference (e). This training may be prepared by the SUPSHIP and conducted by an experienced auditor and is optional if Internal Auditor/Lead Auditor training has been received.

9.3.8.1 Audit Training Requirements

Personnel performing quality audits of the contractor must satisfactorily complete training by a Lead Auditor in ISO 9001:2000, Internal Auditor (or equivalent). This training is optional for Lead Auditors.

Personnel assigned as Lead Auditor/Audit Team Leader must satisfactorily complete training in ISO 9001:2000 Lead Auditor training.

9.3.8.2 Coating Training Requirements

Specialized training and certification in Coating Inspection is required for each individual that is performing verification of contractor coating processes on critical surfaces. Training and certification must be accomplished through a NAVSEA approved course (e.g., National Association of Corrosion Engineering (NACE) Session 1 or NAVSEA Basic Paint Inspector (NBPI)). Recertification requirement is five years for NACE and four years for NBPI. Requirements for critical surfaces are defined in NSTM S9086-VD-STM-030-CHAPTER 631.

9.3.8.3 Electrical Cableway Training Requirements

Personnel performing inspection or acceptance of electrical cableway work shall be trained and qualified to NAVSEAINST 9304.1, Shipboard Electrical Cable and Cableway Inspection and Reporting Procedures, reference (f).

9.3.8.4 Oxygen Cleanliness Training Requirements

Specialized training and certification in Oxygen Cleanliness is required for each individual performing verification of contractor cleaning, assembly, or packaging of certified oxygen clean systems and components. Training and certification must be administered by a NAVSEA approved Certified Oxygen Clean Instructor in accordance with MIL-STD-1330D(1), Precision Cleaning and Testing of Shipboard Oxygen, Helium, Helium-Oxygen, Nitrogen and Hydrogen Systems, reference (g). Recertification of personnel is required every three years.

9.3.8.5 Nondestructive Testing (NDT) Personnel Requirements

9.3.8.5.1 Non-Nuclear NDT Requirements

Specialized training, experience, and certification in the applicable NDT method is required for each individual performing Procedure Reviews, Procedure Evaluations, Product Verification Inspections, process quality audits and actual accomplishment of the NDT method. Unless otherwise specified herein, NDT personnel shall be certified in accordance with NAVSEA Technical Publication T9074-AS-GIB-010/271, Requirements for Nondestructive Testing Methods, reference (h), and/or NAVSEA 0900-LP-001-7000, Fabrication and Inspection of Brazed Piping Systems, reference (i), as applicable.

Training and Qualification. Training programs may be developed by the SUPSHIP office or obtained from Portsmouth Naval Shipyard (PSNS), other Naval Shipyards, Navy technical schools, chapters of the American Society for Nondestructive Testing, or from private industry. Work-time-experience required as a prerequisite for NDT certification can be obtained by actual experience or by performance of PR, PE, PVI or process quality audits of a contractor's inspection functions in the applicable NDT method under the guidance of a certified Level II (Inspector) or Level III (Examiner).

NDT qualifications are:

a. NDT LEVEL II (Inspector): An individual qualified to set up and calibrate equipment and to interpret and evaluate results with respect to applicable codes, standards, and specifications. The Inspector shall be thoroughly familiar with the scope and limitations of the methods for which the individual is qualified, exercise assigned responsibility for on-the-job training and guidance of trainees, and prepare written instructions and document/report NDT results.

b. NDT LEVEL III (Examiner): An Examiner will be capable of establishing techniques and procedures; interpreting codes, standards, specifications, and procedures; and designing

the particular test methods, techniques, and procedures to be used. The Examiner will be responsible for the NDT operations for which qualified and to which assigned, and will be capable of interpreting and evaluating results in terms of existing codes, standards, and specifications. The Examiner will have sufficient practical background in applicable materials, fabrication, and product technology to establish techniques, and to assist in establishing acceptance criteria where none are otherwise available. The Examiner will have general familiarity with other appropriate NDT methods and will be qualified to train and examine Inspector personnel for certification.

Certification. SUPSHIP Level II (Inspector) personnel shall be certified at their activity under a program administered by a PNS certified Level III (Examiner) or by PNS. PNS has been designated as the certification activity for all SUPSHIP Examiner personnel to be certified in accordance with NAVSEA Technical Publication T9074-AS-GIB-010/271 and NAVSEA 0900-LP-001-7000. SUPSHIP Examiner personnel shall certify at PNS in accordance with NAVSEAINST 4355.7A, Nondestructive Test (NDT) Examiner Qualification and Requalification, reference (j).

PNS can certify Inspector and/or Examiner personnel in any of the following methods:

a. VT Inspection

b. VT Inspection (Special Purpose Lead; Inspector certification only)

c. MT Inspection

d. PT Inspection

e. RT Inspection (Structural, Castings, and Piping)

f. UT Inspection (Welds, Thickness, and Silver Braze; individual Inspector certifications may be obtained)

g. UT Inspection (Special Purpose Lead; Inspector certification only)

h. ET Inspection (Welds and Base Material)

Note: SUPSHIP activities requesting Examiner certification must provide evidence to the certifying activity as to the need to function at this level and that facilities and equipment are available.

Certification Maintenance. NDT Level III (Examiner) personnel are to recertify at the intervals specified in NAVSEAINST 4355.7A. NDT Level II (Inspector) personnel will recertify and perform documented verification of use of the applicable NDT method at intervals specified in Technical Publication T9074-AS-GIB-010/271. The required periodic maintenance of certification for Level II (Inspector) personnel may consist of actual performance of the applicable NDT method, performance of a documented Procedure Review, PE, and PVI or by a process quality audit in the applicable NDT method.

9.3.8.5.2 Nuclear NDT Requirements

SUPSHIP personnel performing Nuclear NDT Level III (Examiner) duties are to be certified/recertified as specified in NAVSEAINST 4355.7A. Nuclear NDT Level II (Inspector) personnel are to be certified/recertified by the SUPSHIP activity's Nuclear NDT Level III (Examiner) in accordance with NAVSEA 250-1500-1, "Welding Standard", reference (k), NSTR-99, "Qualification Examination Requirements for Nondestructive Test Personnel", reference (l) and for UT/VT of lead bond certification is in accordance with the classified MIL-STD 791, Certification for UT/VT of Lead Bond, reference (m).

9.3.8.6 Additional Training

In addition to the training listed above, SUPSHIP should determine specific training needs to ensure personnel have the skills, techniques, and knowledge necessary, depending on the processes/products being evaluated or inspected. Some examples include TEMPEST, composites, shock, fiber optics, propellers/propulsors, radar cross section reduction, and emerging technologies.

9.3.9 Retention and Disposal of Inspection Records

Unless otherwise stated in applicable directives, quality inspection records will be retained and disposed of in accordance with SECNAV M-5210.1, Records Management Manual, reference (n). The policy for retention of past performance information (i.e., quality records) to be used for the Contract Performance Appraisal Reporting System (CPARS) is three years after completion of contract performance per FAR Subpart 42.15. The performance period is not complete until the end of the warranty period. In general, the following should occur:

a. Retain all quality inspection records for a period of three years after the delivery of each ship or craft in the contract. Following the three year retention period, quality inspection records under Standard Subject Identification Code (SSIC) 4855 may be destroyed unless legal action is pending with contractors for which these records pertain.

b. Submarine Safety (SUBSAFE) quality records under SSIC 9077 and Naval Nuclear Propulsion quality records under SSIC 9210 will be retained and disposed of in accordance with SECNAV M-5210.1 unless legal action is pending with contractors for which these records pertain.

9.3.10 Establishing an Effective Quality Assurance Interface with Ship's Force

Although SUPSHIP is the authority for acceptance of accomplished work in accordance with the contractual agreement, the ship's commanding officer (or prospective commanding officer) must be satisfied that the work performed is acceptable. The prospective/commanding officer will normally assign members of the ship's force (SF) to review the technical specifications and observe production work performed on the ship. If a

SF observer is dissatisfied with the quality of the contractor's work, the observer will not attempt to require contractor personnel to redo or otherwise amend the work performed. Rather, the SF observer will relay the findings to the appropriate SUPSHIP representative who will then take action. The prospective/commanding officer and any SF observers should participate in conferences held to determine progress of work. The pre-commissioning crew should discuss any problems that are observed with the quality of the work or services provided to the ship with the SUPSHIP program management team prior to any conferences where the contractor's representatives will be in attendance.

In addition, SF personnel may be provided an opportunity for training on QA functions under the cognizance of SUPSHIP. Should the prospective/commanding officer elect to receive training, it should be performed in accordance with a Memorandum of Understanding (MOU).

9.4 Government Contract Quality Assurance Actions at Source

9.4.1 Purpose

The prime contractor is responsible for controlling the quality of materials, items, and services provided by its subcontractors. Government Contract Quality Assurance (GCQA) on subcontracted supplies or services shall be performed only when required in the Government's interest. The primary purpose is to assist SUPSHIP in determining if the prime contractor is ensuring the conformance of subcontracted supplies or services with contract requirements. GCQA at source, previously referred to as Government Source Inspection (GSI), does not relieve the prime contractor of any responsibilities of the contract and GCQA does not establish a contractual relationship between the Government and the subcontractor. SUPSHIP requests for GCQA shall be held to a minimum based on quality performance history maintained by the NAVSEALOGCEN/SUPSHIP and the GCQA criteria, paragraph 9.4.3.1 below.

9.4.2 Exception

This part does not apply to procurements under the technical cognizance of the Deputy Commander, Nuclear Power Directorate, NAVSEA 08. NAVSEAINST 9210.31, Government Procurement Quality Source Inspection Actions for Shipyard Procured Material Under Cognizance of SEA 08, reference (o), provides guidance for procurement of products under NAVSEA 08 cognizance.

9.4.3 Requesting GCQA at Source

SUPSHIP will establish a process for invoking GCQA on subcontracted supplies and for preparation and issue of GCQA instructions. The process should include providing the formal Letter of Delegation (LOD) as well as contacting the on-site or cognizant Defense Contract Management Agency (DCMA) Quality Assurance Representative (QAR).

9.4.3.1 GCQA Criteria

Government inspection, as stated in FAR Part 46.4 and DFARS 246.402, during contract performance is essential. Complex items have quality characteristics, not wholly visible in the end item, for which contractual conformance must be established progressively through precise measurements, tests, and controls applied during purchasing, manufacturing, performance, assembly, and functional operation either as an individual item or in conjunction with other items. GCQA is to be invoked based on the following criteria:

a. mandatory GCQA actions imposed on the SUPSHIP that can be accomplished only at the subcontractor's location

b. performance at any other place would require uneconomical disassembly, destructive testing or special required instruments, gauges, or facilities that are available only at the subcontractor location

c. performance at any other place would destroy or require the replacement of costly special packing and packaging

d. considerable loss would result from the manufacture and shipment of unacceptable supplies, or from the delay in making necessary corrections

e. government inspection during contract performance is essential

f. contract specifies that certain quality assurance functions, which can be performed only at the subcontractor’s plant, are to be performed by the Government

g. items requiring DD 250 for acceptance by the Government

h. it is determined for other reasons to be in the Government’s interest

i. supplies or services for which certificates, records, reports, or similar evidence of quality must be at the subcontractor location

j. item is to be shipped from the subcontractor’s plant to the using activity and inspection at source is required

k. repeated failures

9.4.3.2 Purchase Order Clause

When GCQA actions are determined to be necessary, the prime contractor will be requested to add the following or similar Government notification and access clause to the purchase order:

“Government inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify and furnish a copy of this and all pertinent data/documents to the

Government representative who normally services your plant so that appropriate planning for Government inspection can be accomplished. In the event the Government representative or office cannot be located, our purchasing agent shall be notified immediately."

9.4.3.3 Letter of Delegation (LOD)

When invoking GCQA, an LOD (Appendix 9-D, or similar) will be prepared. The SUPSHIP representative will define the necessary GCQA actions to be taken and the documentation to be provided by the Government representative at the subcontractor's plant. Defined actions should indicate specific quality characteristics, processes or procedures to be verified, tests to be witnessed, sampling plans to be used, or records, reports, and certifications to be evaluated.

All written statements, contract terms, and conditions relating to GCQA actions at the subcontractor level shall be worded so as not to:

a. affect the contractual relationship between the prime contractor and the Government, or between the prime contractor and the subcontractor

b. establish a contractual relationship between the Government and the subcontractor

c. constitute a waiver of the Government's right to accept or reject the supplies or services

9.4.3.4 Distribution of LODs

The LOD will be furnished to the DCMA QAR with plant cognizance, with a copy to the Contract Management Office (CMO), as designated in the Federal Directory of Contract Administration Services (CAS) Components List. The LOD should include a requirement for the QAR to acknowledge receipt of delegation by returning a receipted copy of Defense Contract Management Agency "ACKNOWLEDGMENT." Changes to the purchasing document will be processed similarly. The LOD will also require that the CAS organization provide a completion form. A sample is provided in Appendix 9-D.

9.4.3.5 Documentation

Verification of receipt of LOD, including acknowledgement that the QAR can and will perform the delegated functions, and a signed completion form will be submitted by the QAR.

9.5 Product Data Reporting and Evaluation Program (PDREP)

9.5.1 Purpose

All nonconformities identified during the receipt inspection of Government-Furnished Material (GFM) or Contractor-Furnished Material (CFM) that had GCQA invoked shall be reported in

accordance with the requirements of SECNAVINST 4855.3B, Product Data Reporting and Evaluation Program (PDREP), reference (p).

Appendix 9-A – Quality Assurance Glossary

Attribute: A characteristic or property which is used to determine acceptability or unacceptability with respect to a given requirement.

Certification: The procedure and action by a duly authorized body of determining, verifying, and attesting in writing to the qualifications of personnel, processes, procedures, or items in accordance with applicable requirements.

Characteristic: A physical, chemical, visual, functional, or any other identifiable property that helps differentiate between items of a given sample or population. The difference may be either quantitative (by variables) or qualitative (by attributes).

Corrective Action: An action taken to correct a specific nonconformance by repair, rework, replacement, or a change in requirements and the elimination of the causes to prevent recurrence.

Corrective Action Request (CAR): Any request to the contractor for the correction of a non-conformance.

Critical Nonconformity (Method C) or (Method D): A nonconformance related to system failures that require a high/highest level of management action.

Deviation: Written authorization, granted prior to the manufacture of an item, to depart from a particular performance or design requirement of a specification or referenced document, for a specific number of units or specific period of time.

Document: A medium and the information recorded on it that generally has permanence and can be read by a person or machine.

Inspection: The act of measuring, examining, testing, gauging or otherwise comparing of supplies or services with requirements to determine conformity.

International Organization for Standardization (ISO): A worldwide federation of national standards bodies.

Lead Auditor: A person who is qualified to perform and designated to lead/manage a quality audit.

Major Nonconformity (Method B): A nonconformance that judgment and experience indicate could impair the performance or life of the product and/or result in hazardous or unsafe conditions for the user.

Minor Nonconformity (Method A): A nonconformance or flaw that will probably not impair the performance or life of a product, nor result in unsafe conditions for the user; easily corrected for a minor defect.

Nonconformance: A departure of a quality characteristic from its intended level or state that occurs with a severity sufficient to cause an associated product or service not to meet a specification requirement.

Observation: An action that occurs when one attribute is verified to one unit of product.

Preventive Action: An action taken to eliminate the causes of a potential nonconformity, or other undesirable situation, to prevent occurrence.

Process: A set of interrelated resources and activities that transform inputs into outputs with the aim of adding value.

Process Quality Audit: An analysis of elements of a process and appraisal of completeness, correctness of conditions, and probable effectiveness.

Products: The results of activities or services; a generic term that denotes goods and/or services.

Product Quality Audit: A quantitative assessment of conformance to required product characteristics.

Quality: The composite of all features and characteristics of a product or service that bear on its ability to satisfy given needs.

Quality Assurance (QA): A planned and systematic pattern of all actions necessary to provide adequate confidence that the product or service conforms to established technical requirements.

Quality Audit: A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

Quality Management System: Collective policies, plans, practices, and the supporting infrastructure by which an organization aims to reduce and eventually eliminate non-conformance to specifications, standards, and customer expectations in the most cost effective and efficient manner.

Quality Management System Audit: A documented activity performed to verify, by examination and evaluation of objective evidence, that applicable elements of the quality management system are suitable and have been developed, documented, and effectively implemented in accordance with specified requirements.

Record: A document that contains objective evidence that shows activities performed or results achieved.

Specification: The document that prescribes the requirements with which the product or service has to conform.

Surveillance: The continuing monitoring and verification of the status of procedures, methods, conditions, products, processes, services, and analysis of records to ensure that specified requirements are being fulfilled.

Technical Data: Data consisting of specifications and drawings.

Testing: A means of determining the capability of an item to meet specified requirements by subjecting the item to a set of physical, chemical, environmental, or operational actions and conditions.

Unit of Product: An entity that can be inspected or verified, expressed in distinct or quantitative terms (e.g., 5 linear feet of weld).

Verification: The process of confirming by examination and provision of objective evidence that specified requirements have been fulfilled.

Waiver: A written authorization to use or release a quantity of material, components, or stores already manufactured but not conforming to the specified requirements.

Other terms and definitions are as listed in ANSI/ASQC A8402-1994.

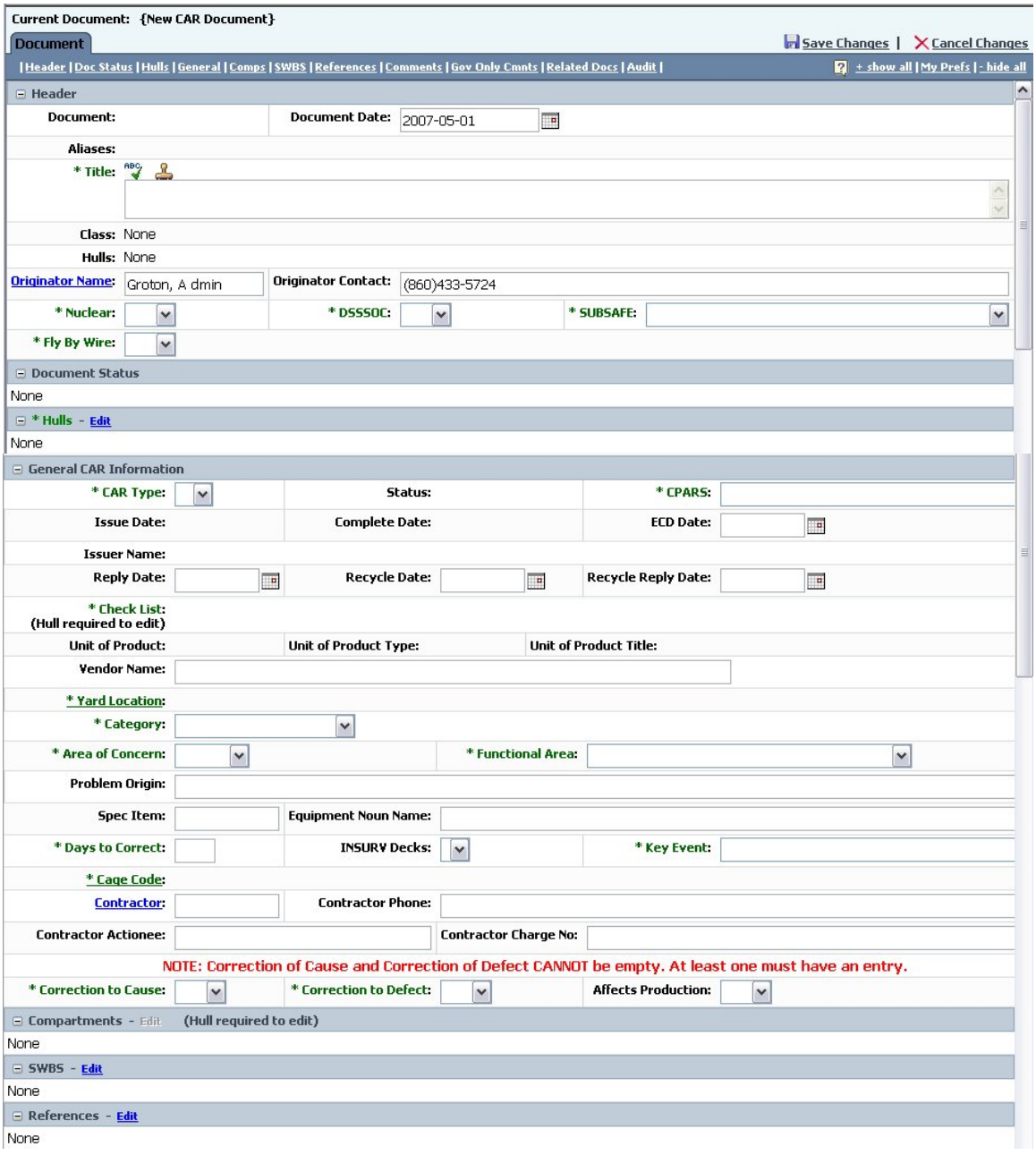
Appendix 9-B – List of Acronyms

ACO	Administrative Contracting Officer
CAQAP	Contract Administration Quality Assurance Program
CAR	Corrective Action Request
CAS	Contract Administration Service
CASREP	Casualty Reports
CMO	Contract Management Office
CPARS	Contract Performance Appraisal Reporting System
DCMA	Defense Contract Management Agency
ET	Eddy Current Test
GCQA	Government Contract Quality Assurance
GSI	Government Source Inspection
ISO	International Standard Organization
JFMM	Joint Fleet Maintenance Manual
LOD	Letter of Delegation
MOU	Memorandum of Understanding
MT	Magnetic Particle Test
NACE	National Association of Corrosion Engineering
NBPI	NAVSEA Basic Paint Inspector
NDT	Nondestructive Testing
NSE0	Navy Special Emphasis Organization
NSTM	Naval Ships Technical Manual
PCO	Procuring Contracting Officer
PCO/CO	Pre-Commissioning Commanding Officer

PE	Procedures Evaluation
PDREP	Product Data Reporting and Evaluation Program
PNS	Portsmouth Naval Shipyard
PR	Procedure Review
PT	Liquid Penetrant Test
PVI	Product Verification Inspection
QA	Quality Assurance
QAR	Quality Assurance Representative
QDE	Quality Data Evaluation
RT	Radiography Test
SAP	Supplier Audit Program
SF	Ship's Force
SPD	Ship Project Directive
SSIC	Standard Subject Identification Code
SUBSAFE	Submarine Safety
UT	Ultrasonic Test
VT	Visual Test

Appendix 9-C – Corrective Action Request (CAR)

(new form)



Appendix 9-D - Sample Letter of Delegation (LOD)

From: _____ (Activity)

To: _____ (DCMA Component)

Subj: (Insert contract or purchase order number, vendor or subcontractor and address, as appropriate)

Encl: (1) Government Contract Quality Assurance Requirements Invoked on DCMA at Source
(2) DCMA "Acknowledgment" of Government Contract Quality Assurance Requirements Invoked
(3) DCMA Completion Form of Government Contract Quality Assurance Requirements Invoked

1. Enclosure (1) is forwarded for implementation by your activity on the subject contract or purchase order and is not intended to restrict any additional inspection/surveillance requirements imposed by the Quality Assurance Representative (QAR) in accordance with Navy Special Emphasis Programs (NSEP) or DCMA Quality Assurance policies.

2. Requests for reduction/elimination of any specific inspection requirements listed herein will be considered when supported by proper documentation attesting to the Contractor's control over the process. This documentation may include a copy of the QAR's facility surveillance and inspection program plan that details the method of DCMA verification, manner in which performed, and statistical method in which derived. Documentation should include (where appropriate/practicable) a flow chart of the process under consideration detailing product audit points and the results of the Contractor's/DCMA statistical analyses of the process which clearly indicates the process is under control and meeting specifications. QAR's with NSEP contracts are encouraged to use the Supplier Audit Program (SAP) checklist for applicable processes and are required to send completed SAP audit checklists along with the other requested documentation.

3. It is requested that enclosure (2) be completed by the QAR and returned to (appropriate Activity and Code) by the date specified therein. In this endeavor, the QAR is advised as follows:

a. Contact (appropriate Activity and Code) when inspection performance requested in enclosure (1) may result in additional costs or delayed delivery.

b. Promptly notify this office if any portion of this delegation cannot be accomplished.

c. Take exception to enclosure (1) when any specific inspection requirement listed therein meets the conditions of paragraph 2, listed above, with the supporting documentation.

4. A copy of the QAR's inspection records or NSEP surveillance and inspection plan, generated in accomplishing enclosure (1) inspections, is submitted to SUPSHIP with each shipment when requested.

5. It is requested that enclosure (3) be completed by the QAR and returned to (appropriate Activity and Code) indicating that all technical contractual requirements have been satisfactorily completed.

GOVERNMENT CONTRACT QUALITY ASSURANCE REQUIREMENTS INVOKED ON DCMA AT SOURCE

Contract Number: _____ Level: _____

Prime Contractor: _____ CMA Loc: _____

Subcontractor: _____ DCMA Loc: _____

A. GENERAL INSTRUCTIONS:

The DCMA Quality Assurance inspection/surveillance records or the Navy Special Emphasis Programs (NSEP) surveillance and inspection plan is a prime requisite to assure successful completion of this contract. Assurance of the Contractor's compliance to the contract technical and quality requirements is required.

B. DEFINITIONS:

The words listed below are used throughout this delegation and defined herein to clarify intent to the QAR:

- Perform (physically accomplish tests and/or inspections);
- Witness (observe contractor's performance of tests and/or inspections);
- Verify (by reviewing the contractor's documented evidence of tests/inspections); and
- Visually Inspect (view the component, part features or characteristics such as surface condition, cleanliness, markings, etc. and verify conformance to each visually discernable contract or specification requirement).

C. SPECIFIC INSTRUCTIONS:

The QAR is requested to maintain characteristic numbering as listed. Since only certain characteristics from the NAVSEA Master List are applicable to this contract, the numerical sequence may not be continuous. All correspondence should reference the numbers as listed below in order to assist this Activity to identify to overall program reporting.

Characteristics 1 through 4 are required to be recorded on the QAR inspection records submitted, are highlighted here to alert the QAR to realize that they are an integral part of the overall control system and shall be administered on each lot ready for shipment:

1. Documentation: The QAR shall verify that paperwork (software pertaining to the shipment) is complete in quantity and applicable to the procurement document and shipment.
2. Damage: The QAR shall perform inspection to ensure damage free condition of shipping containers or protective devices to prevent impairing or degrading the function or quality of the material.
3. Preservation, Packaging, Packing, and Marking: The QAR shall perform inspection to assure that preservation, packaging, packing, and marking of each shipment is in accordance with the procurement document.

4. Visual: The QAR shall perform visual inspection to assure the material displays an appearance of cleanliness and good workmanship.

Characteristics 5 through 25 will be identified (e.g., circled) as applicable to the purchase order. The characteristics identified will meet the requirements of the purchase order.

5. Material Identification: (perform/verify)
6. Material Verification Tests: (verify/witness)
7. Radiography: (verify/witness)
8. Magnetic Particle Test: (verify/witness)
9. Ultrasonic/Eddy Current Test: (verify/witness)
10. Liquid Penetrant Test: (verify/witness)
11. Operational or Functional Test: (witness)
12. Pressure Test: (witness)
13. Electrical/Electronic Test: (witness)
14. Missing, Wrong, or Improperly Assembled Parts: (perform)
15. Dimensions: (perform)
16. Welding: (verify/witness)
17. Brazing: (verify/witness)
18. Soldering: (verify/witness)
19. Finish: (perform)
20. Shelf Life: (verify/witness)
21. Contracted Technical Data: (verify/witness)
22. Mercury Free: (verify/witness)
23. Procedure Approval (Special Process): (verify/witness)
24. Manufacturing Process: (verify/witness)
25. Design Evaluation Tests: (witness)
26. Other (describe in detail)

_____
_____
_____
_____
_____
_____
_____
_____

DCMA ACKNOWLEDGMENT OF INVOKED GOVERNMENT CONTRACT QUALITY ASSURANCE REQUIREMENTS

Government Contract Quality Assurance (GCQA) requirements per transmittal letter dated _____ have been received. The following action(s) will be taken:

(1) GCQA requirements as specified will be performed.

(2) GCQA requirements as specified will be performed with exceptions noted below.

(3) GCQA requirements as specified cannot be performed for reasons explained below.

(4) QAR inspection records will be forwarded with each shipment per your transmittal letter.

QAR (print name) _____

QAR (signature) _____ Date _____

Contract Number _____

Subcontractor/Vendor _____

Note: Addressees will check appropriate number(s), complete and return to:

Activity: _____

Location: _____

By Date: _____

DCMA COMPLETION FORM OF INVOKED GOVERNMENT CONTRACT

QUALITY ASSURANCE REQUIREMENTS

Contract Quality Assurance (CQA) requirements invoked by (appropriate Activity and Code) transmittal letter dated _____on contract or purchase order number _____ and vendor or subcontractor _____ have been satisfactorily completed.

The following documents shall be mailed or faxed to (name of SUPSHIP) as soon as the DCMA CQA actions is complete:

a. A copy of all shipping documents.

b. A copy of all Corrective Action Requests (CARs) written on this purchase order.

Date final shipment was made: _____

Remarks:

_____
_____
_____
_____
_____
_____
_____
_____

QAR (print name) _____

QAR (signature) _____ Date _____

Phone: _____/_____

(Commercial) (FAX)